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ON SOME NEW PSOCIDÆ.

S. FRANK AARON.

The several new species described here are in the collections of the American Entomological Society.

Cæcilius subflavus.

Almost entirely pale yellowish, or bright luteous, very sparsely pilose. Antennæ and palpi very pale, the former slightly fuscous on the basal joints. Eyes black and yellow. Ocelli rufous brown, small. On each side of the occiput, from and behind the eye, a fuscous cloud or band, not joining in the middle. Thorax and abdomen yellowish, the anterior lobe of the former with a faint darker spot, and the latter with some fuscous markings; appendages brighter yellow. Feet pale, semitransparent. Wings hyaline, very slightly clouded in the cells with pale luteous, and with a nucleated darker spot directly below the posterior angle of the pterostigma. Veins luteous, and with the pterostigma, having a few fuscous hairs, each springing from a black point. Length to end of wings about 2-2.5 millim.

Southern Texas. I collected this species from live oak trees along the river bottoms; found only two specimens, male and female. The male is smaller, eyes black and large, the thorax fuscous (probably discolored by drying), and the clouds in the wings pale brown.

Cæcilius nubilus. Plate I, fig. 3.

Pale luteous. Antennæ and palpi entirely pale. Nasus somewhat indistinctly clouded. Ocelli dark brown. An irregular maculate pale brown line on each side of the head, extending from within the margin of the eyes to the posterior central portion of the occiput, and a double maculate paler brown line dividing the occiput and almost reaching the ocelli. Eyes pale, with a yellowish green reflection. Thorax pale, the lobes clouded with pale brown. Abdomen paler, the sutures, in part, brown. Legs very pale, the last tarsal joint fuscous. Wings hyaline, pterostigma the same, not more opaque; veins brown, the larger ones, on the basal half of the wing, paler, and on the apical half, wherever they join the margin of the wing, they are, together with the marginal vein at that point, black, or deep fuscous,

surrounded by a small pale brown clouded spot. Each cell in the apical half of the wing has, midway between the veins, a pale brown cloud, approximately taking the shape of its cell. At the base of the pterostigma a small black spot, and another at the junction of the cubitus and posterior margin. Length to end of wings about 2 millim.

Southern Texas. One specimen discovered while beating a live oak thicket on the prairies.

Cæcilius impacatus.

Pale yellow and brown. Antennæ much shorter than wings, fuscous, the basal joints and the first long joint in part, pale; palpi fuscous. Nasus pale, somewhat clouded with brown; rest of head yellow with brown markings, the space before and directly around the separated golden colored ocelli, brown; a brown band on each side bordering the inside margin of the eyes, and another on each side of the dividing occipital suture, reaching each posterior ocellus. Eyes brown and pale, about concolorous with the other parts. Mesothoracic lobes brown, deeper colored anteriorly, the sutures pale yellowish; rest of thorax pale yellow and brown. Abdomen pale, the sutures brown, and brown markings at the apex. Legs pale, the apical tarsal joint darker. Wings clear hyaline, the seemingly delicate veins pale brown. A small black spot at the base of the pterostigma, and another at the junction of the cubitus and posterior margin. Otherwise the wings are entirely unmarked. About 3.5 millim. long to end of wings.

Penn. (near Philadelphia).—I beat one specimen from the branches of a beech, and on account of its constant activity found it very difficult to capture, almost hopelessly mashing it in doing so.

Psocus campestris.

Luteous and pale brown. Antennæ about as long as the wings, fuscous, the basal joints luteous; palpi pale, fuscous on the extreme apex. Nasus short, lineated with brown, and sparsely pilose; rest of head luteous, a brown irregular patch on the margin of nasus before the ocelli; a narrow black line dividing the occiput; faint fuscous maculose markings on each side, within the margin of the eyes. Ocelli black; eyes brown, with paler reflections. Lobes of the thorax brown, the sutures

luteous. Abdomen pale brown, the sutures and underneath in part pale. Legs pale, femora somewhat yellowish. Wings perfectly hyaline, the veins pale brown, semitransparent luteous in parts; pterostigma, a narrow space directly beneath it, and the indication of a small spot at the junction of the cubitus and posterior margin, pale brown. Length to end of wing about 2.5 mill.

Southern Texas. One specimen taken from the live oak trees that compose the small groves (motts) on the prairies. It is allied to *Ps. quietus*, of Hagen (many specimens of which I also found in the same locality, but in different situations, viz.: on yellow berry bushes), but differs from that species in being considerably smaller, in having the nasus shorter, not reaching the ocelli, and by having fewer markings on the head.

Psocus Leidyi. Plate I. fig. 2.

Pale yellowish and black. Antennæ nearly as long as the wings, subfuscous, the basal joints pale; palpi pale, the apical joint subfuscous. Head pale yellowish, deepest on the nasus, which is faintly lineated with paler; a large shining black rounded spot in the middle of the upper part of the nasus, bordering the suture; beneath the antennæ, on each side, a small black spot; ocelli black; occiput with a brown band on the dividing suture containing a double row of darker spots almost reaching the ocelli. Eyes black. Lobes of the thorax black, shining, the sutures and the rest of the thorax pale yellow. Abdomen pale yellow, the sutures black, merging into a longitudinal row of irregular spots on each side of the dorsum; a large, irregular, shining black patch on the dorsum of the apical segment, with a smaller black spot on each side below it. Abdomen beneath partly fuscous. Apical appendages, yellow and black. Legs very pale, the base of the tibia with a black spot beneath, and the tarsi subfuscous, the apical joint black. Wings clear hyaline, veins mostly fuscous, that enclosing the pterostigma yellow, and the veins enclosing the discoidal cellule, with certain of their branches, in part pale yellowish and light brown. Pterostigma subopaque, a small black spot at its base, a rounded clouded brown spot posteriorly within its apex, and another brown spot directly below and contiguous to its posterior angle; at the basal angle of the discoidal cell a large rounded brown spot, and another smaller at the junction of the cubitus and

inner margin. Hind wing immaculate. Length to end of wings about 5.5-6 mill.

Rhode Island and Pennsylvania. From two specimens collected many years ago by Dr. Joseph Leidy in Rhode Island, and two specimens taken by myself near Philadelphia, on the trunks of chestnut trees, where they appeared to be solitary. For some time I had, somewhat doubtfully, supposed this species to be *Ps. canadensis*, of Prov., until I received a letter from Dr. Hagen, referring *canadensis* to the genus *Elipsocus*.

***Psocus texanus*.**

Pale yellow, with brown markings. Antennæ longer than the wings, fuscous, pale at the base. Nasus lineated with brown; rest of head above with irregular markings, viz.: a horseshoe spot before the ocelli, an irregular line on each side from near the base of the antennæ to the ocelli; a line of spots within the margin of the eye, occiput with a line of spots on each side of the dividing suture that come together just behind the ocelli. Eyes brown, with a slight golden tinge; ocelli black. Lobes of the mesothorax clouded with fuscous, the sutures pale yellow. Abdomen marked with fuscous, and the anal appendages yellow. Legs luteous, the apical tarsal joints fuscous. Wings hyaline, the veins brown; pterostigma less clear, a fuscous spot within its apical half, and another just below it; a fuscous band crosses the entire wing in the middle, its outer margin reaching from the base of the pterostigma to the junction of the cubital and post-costal veins and the posterior margin, passing through the basal angle of the discoidal cell. Hind wings hyaline, no markings. Length to end of wings about 4 mill.

Var. *submarginatus*. Plate I, fig. 1.

Characterized by having the fore wings with additional markings in the form of a submarginal fuscous band or cloud, reaching from the second apical nervule to the posterior apical extremity of the discoidal cell, and with a few somewhat rounded spots between the nervures bordering upon and beyond the discoidal cell. Length about 3 mill. Otherwise like *texanus*.

Southern Texas. I took fifteen specimens of *texanus* and four of var. *submarginatus* entirely by beating from yellow berry bushes, black chaparral and live oak, over the prairies. It is probably the commonest species in its locality.

ECHMEPTERYX nov. gen.

Head much as in *Psocus*, etc., the ocelli more widely separated. Antennæ with the two basal joints short and stout, the others rather slender, each joint attenuated in its middle, swollen somewhat at its apex. Dorsum of mesothorax entire, not divided into lobes, extended into a projection posteriorly. Tarsi three-jointed. Wings covered with scales of various forms. *Apex of wings pointed*, and furnished somewhat densely with long hair. Neuration peculiar, as shown in Plate I, figs. 5-6.

Belongs to a group with *Amphientomum* and *Perientomum*, probably most closely allied to Dr. Hagen's *Amph. (Syllysis) candidatum*; differs in the neuration.

Echmepteryx agilis. Plate I, figs. 4-9.

Antennæ much shorter than the wings, pale fuscous; palpi fuscous. Nasus fuscous, pilose; rest of head somewhat pilose, pale, with dark brown markings, a bent brown line across the head, transversely, separating the anterior from the posterior ocelli; before the ocelli, in the middle, some irregular brown markings and bands (varying in different specimens), and between the ocelli, connecting with the transverse line, two convergent brown lines, extending to a brown patch on each side upon the occiput; on each side, within the margin of the eyes, another brown spot, becoming a line, and also joining the occipital patches. Ocelli black, each one within a small brown spot; eyes brown and golden yellow. Thorax brown, portions pale luteous, dorsum of mesothorax dark brown, somewhat scaled, and very pilose. Abdomen pale yellowish or luteous (in some specimens fuscous, probably discolored by drying), with some brown markings. Legs fuscous, somewhat paler or luteous; tarsi luteous, fuscous towards base. Wings fuscous or smoky when denuded, becoming hyaline towards the apex; veins darker, semitransparent. Scales mostly fuscous, paler towards the base; when upon the wing seemingly fuscous, and when thickly placed appearing almost black; other scales luteous upon the wing. These scales cause the wing to be covered with black, fuscous and luteous patches. The long apical hair mostly fuscous, luteous in patches. Hind wings hyaline, slightly infuscated, no scales, the long apical hair fuscous. Length to end of wing about 3 millim.

Pennsylvania. I found this species on the trunks of beech

trees in a woods near Philadelphia. It is very active, quick and difficult to secure. I believe it represents a group entirely new to our fauna.

EXPLANATION OF PLATE I.

FIG. 1. *Psocus texanus* var. *submarginatus*.

" 2. " *Leidyi*.

" 3. *Cæcilius nubilus*.

" 4. Head.

" 5. Denuded fore wing and thorax.

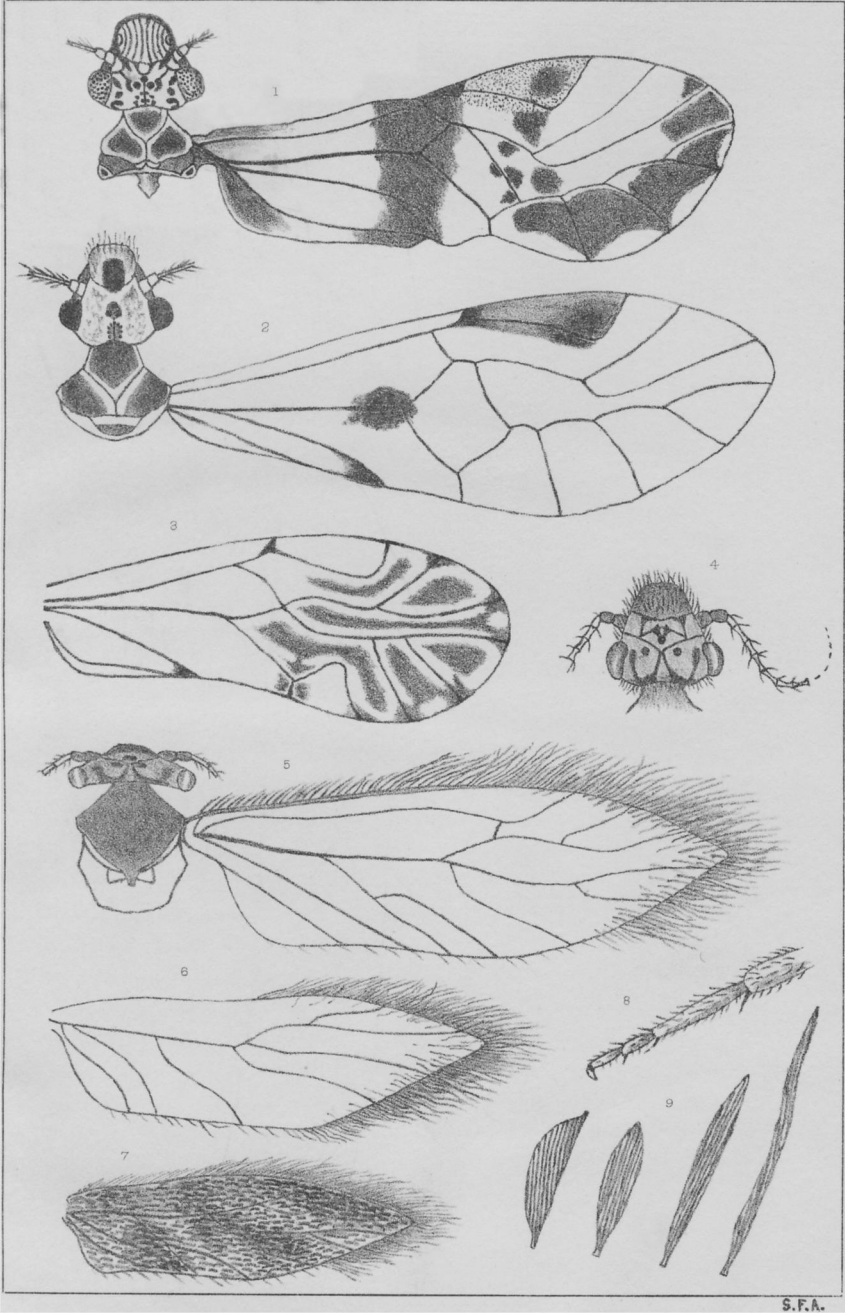
" 6. " hind wing.

" 7. Fore wing covered normally with scales.

" 8. Tarsus.

" 9. Forms of wing scales greatly magnified.

} of *Echmepteryx agilis*.



S.F.A.